

Applicant: James A. Proctor Jr.
Application No.: 09/691,874

REMARKS/ARGUMENTS

Claims 1-21 are currently pending in this application. Claims 22-24 have been canceled without prejudice or disclaimer. Claim 1 has been amended to specify a method for allocating wireless channels. Claims 1, 3, 5, and 13 have been amended to remove reference to a time slot interval and make explicit that the claimed staggering of forward and reverse channels is such that each forward and reverse channel is assigned a forward and reverse time slot, respectively, and each forward time slot partially overlaps in time with a corresponding reverse time slot so that return messages for wireless communication can be transmitted in less than one time slot. The specification has been amended to correct formal matter and place the application in better condition for allowance. The Applicant submits that no new matter has been introduced into the application by these amendments.

Claim Rejections

Claim 1 stands rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter. Claims 1-9 and 13-18 stand rejected under 35 U.S.C. §102(e) as being anticipated by Reese (U.S. Patent No. 6,226,274). Claims 10-12, and 19-21 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Reese in view of Applicant's Admitted Prior Art (AAPA). These rejections are respectfully traversed.

Reese does not teach the scheduling of channels by partially overlapping forward and reverse time slots in time, and therefore does not teach the features of the present claims. Reese discloses a frame structure by which a plurality of user stations are capable of communicating with a base station over two frequency bands so as to perform frequency division duplex (FDD) communication (Col. 3 lines 16-

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19). As illustrated in Fig. 3, and described in Col. 2, lines 7-31, Reese teaches a prior art GSM frame structure wherein forward (i.e. base station to mobile station) transmission time frames 302 and reverse (i.e. mobile station to base station) transmission time frames 303 are made up of multiple time slots, 306 and 307, respectively, for example 8 time slots per transmission time frame. With respect to Fig. 3, Reese discloses the forward and reverse transmission time frames as being offset by a predetermined duration of multiple time slots, for the purpose of providing sufficient processing time, as described in Col. 2, lines 25-31. The forward time slots 306 and reverse time slots of Reese are shown to be fully overlapping and not partially overlapping in time, in contrast to the present invention.

The amended claims are directed toward the partial time overlapping of forward and reverse time slots, as illustrated in Figure 3 of the present invention. Figure 3 clearly shows forward and reverse time slots that are staggered and that overlap by one half of a time slot, for example forward time slot 48a-48b and reverse time slot 50a-50b (see also the last paragraph on page 6). According to the time slot staggering of the present invention, a response message 56 can be transmitted at time 50b after only half a time slot following the completed reception of message 52 at time 48b. Figure 3 is a distinctly different embodiment from that shown in Figure 6, because Figure 3 shows the partial overlapping of a forward time slot and a corresponding reverse time slot, which is not shown in Figure 6.

Examiner asserts that a "time slot interval" is the duration of an entire frame comprising multiple (for example 8) time slots taught in Reese. The amended claims now refer to a "time slot" in place of a "time slot interval" to better distinguish the present invention from Reese. Specifically, the amended claims now require partial time overlap of a forward time slot and a corresponding reverse time slot in order to be able to send response messages in less than one time slot

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(emphasis added). In contrast, Reese discloses timeframes comprising multiple time slots, for example 8 time slots, where timeframes overlap by multiple time slots, for example 3 time slots. Nowhere does Reese teach or suggest partial time overlap of a forward time slot and a corresponding reverse time slot.

Claim 1 has been amended to be directed toward a method for allocating wireless channels, which produces the useful and tangible result of scheduling wireless communications on forward and reverse channels with time slot overlap so that return messages that are processed in less than a time slot interval may be transmitted sooner. Accordingly, the withdrawal of the U.S.C. §101 non-statutory subject matter rejection for this case is respectfully requested.

Amended independent claims 1, 3, 5 and 13 now require partial time overlap of a forward time slot and a corresponding reverse time slot, so that a response message may be transmitted in less than one time slot. This is not taught by Reese and results in improved performance because response messages can be sent in less than one time slot, thus freeing up the channel sooner and increasing capacity of the wireless communication system, as explained on page 7, lines 11-17 of the present invention. Based on the arguments presented above, withdrawal of the 35 U.S.C. §102 and 35 U.S.C. §103 rejections of claims 1-21 based on Reese is respectfully requested.

Conclusion

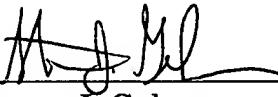
If the Examiner believes that any additional minor formal matters need to be addressed in order to place this application in condition for allowance, or that a telephone interview will help to materially advance the prosecution of this application, the Examiner is invited to contact the undersigned by telephone at the Examiner's convenience.

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In view of the foregoing amendment and remarks, Applicant respectfully submits that the present application, including claims 1-21, is in condition for allowance and a notice to that effect is respectfully requested.

Respectfully submitted,

James A. Proctor Jr.

By 
Steven J. Gelman
Registration No. 41,034

Volpe and Koenig, P.C.
United Plaza, Suite 1600
30 South 17th Street
Philadelphia, PA 19103
Telephone: (215) 568-6400
Facsimile: (215) 568-6499

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